Will your baby grow strong, beautiful, happy?

A BOOK ABOUT BABIES

"A BOOK ABOUT BABIES."

THIS gift copy of "A Book About Babies" comes to you with the hope that the authoritative yet very simple guidance it contains will help you very materially in your happy task of bringing baby through the earliest days to strong, beautiful, happy childhood.

"A Book About Babies" is written by a qualified lady doctor, herself a mother. It appears under the auspices of the Sanitarium Health Food Company. You will find it, therefore, immensely practical; entirely reliable. You will look in vain for faddy notions about food, or extravagant suggestions as to clothes.

"A Book About Babies" abounds in common sense. It sets out certain very important, indeed vital, rules of health for the expectant and the nursing mother, for the newly born infant and the growing child.

These rules should be faithfully observed. They are quite easy to follow. The valuable recipes have each been tested and proved good. Follow the directions given throughout and know that thereby you are doing all that is necessary to give baby an excellent start in life.

Continue through childhood your watchful care in the important matters of diet and sleep. Not for a moment must your wise and loving vigilance relax. The tender little body, the hungry little mind, must be fed and satisfied and disciplined with unceasing care, with unremitting patience.

What greater gift can you give your baby than a healthy body, fit vessel for a pure and lovely mind? What boon can any king or poet, scientist, artist or philosopher, bestow upon the world whose value can excel or even equal your good gift to it of a strong, beautiful, happy child?

Will you therefore then accept this little book with the compliments of the Sanitarium Health Food Company and our best wishes for the continued well-being and happiness of the baby in your home.

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CHAPTER 1.

The Expectant Mother.

GUARDING the health of the expectant mother is a matter of the utmost importance. For her own sake, it is needful to her safe passage through the experience of pregnancy and labour; for her child's sake, it is necessary that he may be born sound in mind and in body.

During pregnancy, great demands are made upon the prospective mother. All of her organs, but particularly the digestive and excretory, are called upon to do double duty. In order to maintain radiant health, she must rigidly observe the laws of healthful living.

Fresh air and sunshine are essential. Daily the pregnant woman must spend as much time as possible out of doors. She must also freely admit pure air and sunshine into her home.

Exercise of suitable nature should be taken each day. Walking excels as an outdoor exercise, as it brings every muscle of the body into play. Light gardening and household duties also afford a wide variety of muscular work and thus systematically increase one's bodily strength.

Rest and sleep are as needful as exercise, for the natural repairs of the body occur chiefly during repose. The expectant mother should allow eight hours nightly for sleep and should enjoy several short rests during the day.

Clothing should be comfortable and so arranged that no part of the body is restricted in its work. High-heeled shoes, tight corsets and garters are particularly harmful.

Elimination of body wastes is of the utmost importance. Special care should be taken to maintain the normal activity of the kidneys, bowels and skin. This can best be accomplished by a careful regulation of the diet, by free water drinking and by the daily bath. In cases where bowel activity calls for particular attention, San-Bran should be eaten daily. Sanitarium Flavoured San-Bran is rich in vitamins and in mineral salts such as phosphorus, sodium, potassium, lime, magnesium and iron. It supplies the necessary roughage, the mechanical and chemical stimuli to promote proper intestinal activity. It is Nature's own corrective of sluggish bowel action. Sanitarium Flavoured San-Bran is delicious in itself—just light, golden flakes of utter goodness. This natural laxative may be added to the usual breakfast cereal or where a constipated condition has become more or less chronic, San-Bran should be taken at every meal.

THE IMPORTANCE OF DIET. During the period of pregnancy, there is no subject to which a woman should give more careful consideration than her diet. The food which she eats must serve a double purpose. It must nourish her own body, supplying strength and energy for the efficient working of each vital part. It must also furnish all of the requisite materials for the upbuilding and development of her infant's body.

To accomplish these purposes, her food should be nourishing, easily digested and well balanced as regards the various food elements. The lacto-vegetarian diet is admirably suited to the needs of the expectant mother.

She may draw her protein or tissue-building material from milk, eggs, cereals, nuts, and legumes, as dried beans, peas and lentils. These foods, while furnishing a rich supply of nourishment, are free from disease or waste products. Fruits and vegetables add a variety of delightful flavours as well as the necessary mineral salts and vitamins.

It is advisable to introduce a little Marmite, a pure vegetable extract, into the daily dietary. This is particularly important at such times as vegetables may be scarce. Marmite is the richest known source of vitamin-B, and on this account has a deservedly wonderful reputation. Marmite is a powerful digestive aid; it increases the nourishment and improves the flavour of other foods. Marmite, therefore, should be added to savoury cookery of all kinds.

The expectant mother must take great care that her diet is ample in amount and that it is in no way de-vitalized, else both she and her child will suffer. A mistake made by many is the extensive use of white flour in place of the entire-wheat product. The whole wheat is rich in the food elements essential to tissue and bone formation. In the ordinary milling process, however, the wheat is so refined that it is deprived of its most valuable constituents. Various ailments result from deficiency in the diet of the very elements which abound in whole wheat and other whole cereals. To avoid these disorders, it is of the utmost importance that care be taken to procure the genuine whole-wheat products.

One may easily be misled even in so simple a matter as that of purchasing whole-wheat bread. Many bakers, thinking to produce a lighter and thus more popular loaf, use only a small portion of entire-wheat flour, the deficiency being largely concealed by the addition of molasses, treacle, malt extract or other darkening agent.

The pregnant woman should exercise the greatest care in choosing her cereal foods. It is possible in some districts to obtain whole-wheat bread, cake, scones and pastry. But in many places one has the greatest difficulty in procuring the genuine whole-wheat products.

Fortunately, one may be certain of getting the entire wheat kernel in Granose Biscuits. Granose is prepared from the choicest selected, washed wheat. In the process of manufacture nothing whatever is removed from the wheat kernels. They are merely prepared in such a way as to render them easily digested and at the same time most palatable. The prospective mother may very wisely make large use of Granose during her period of expectancy. In fact Granose, together with milk, cream, butter, fruits, vegetables, eggs and nuts, constitutes an almost ideal diet for one in her condition. Granose will be enjoyed for breakfast, when it should be eaten merely with the addition of milk. At other meals Granose Biscuits, the best form of whole-meal bread, should be eaten with other foods as one has been accustomed to eat bread. See Chapter 8 for recipes.

The extensive use of flesh foods frequently causes kidney complications during pregnancy, both from the high proportion of protein and from the excessive waste products which they contain.

Particularly during pregnancy it is necessary to take an abundance of suitable drinks. Water, fruit juices, Kwic-Bru (a delicious and healthful cereal beverage), vegetable broths and Marmite broth all fill this need admirably. These drinks supply the fluid required by the body, flush the kidneys, and stimulate the bowel to normal activity. The vitamin content of Marmite renders Marmite broth of particular value in the matter of regulating the bowels. See Chapter 8 for recipes.

The expectant mother who observes the rules of healthful eating and drinking is seldom called upon to face the emergency of kidney failure during labour.

It is advisable that she early engage her medical attendant. She should then report to him at regular intervals and should supply him with a specimen of her urine for examination at each visit.

We particularly emphasise this matter of kidney integrity during pregnancy as no complication can arise during labour which is more menacing to both mother and child than kidney failure.

CHAPTER 2.
The Nursing Mother.

The true mother desires to do her best for her child. Realising that "well begun is half done" she determines to give her babe a good start in life. All through pregnancy she carefully guards her own health, knowing that in so doing she is safeguarding the future health of her child. Then when her period of waiting is over, and her baby is safe in her arms, she realises, as never before, that she must in very truth *live* for her child.

In order that she may nourish her babe at her breast (for it is certain that to be breast-fed is best for the child), she must choose her own food with care. Her diet must be abundant and rich in tissue and bone-building material, else her milk will be of poor quality and her babe will not thrive.

The diet recommended for the expectant mother is equally suitable for the nursing mother.

There should be an abundance of fresh fruit, green vegetables, whole-wheat products, as Granose; various cereals, nuts, milk, cream and butter; pure vegetable products as Marmite. One may also with advantage use in abundance such dried fruits as prunes, raisins, figs and dates. These, while being highly nourishing are also laxative, and so assist in maintaining the normal activity of the intestine. Daily use of San-Bran is advised if bowel activity is anything less than normal. While the nursing mother needs an abundance of nourishing food, she should carefully guard against over-eating. The quantity of food taken should be only slightly in excess of that usually required under ordinary circumstances.

The practice of drinking a glass of milk or gruel between meals is a frequent cause of gastric disturbance. Milk is a food requiring

digestion and in consequence, it should be taken only at meal time. It is true that the nursing mother requires plenty of liquids, but this should be taken in the form of milk with meals, or as water, fruit drinks or clear broths between meals. Marmite broth, being rich in vitamins, is a valuable between-meal drink for nursing mothers.

THE MANAGEMENT OF NURSING: Regularity in nursing is essential to the welfare of both mother and child. The child who is fed at regular and proper intervals is usually a contented child, suffering seldom if ever from indigestion and sleeping as a healthy baby should. Again, if a baby is normal and regular in its habits, the mother is free from anxiety concerning her child. Her sleep is undisturbed at night, and by day she is free between times to attend to her various duties or to enjoy needed rest and recreation.

The nursing mother needs plenty of exercise, preferably in the open air. Exercise plays a definite part in maintaining not only the quantity but the quality of the mother's milk.

The mother, who for any reason is confined indoors and without suitable exercise, suffers in consequence. Her circulation becomes sluggish and her muscles flabby; her bowels become constipated; the appetite fails and the digestion is impaired.

While exercise is necessary to the health of the nursing mother, over-fatigue and loss of sleep must be carefully avoided. Nearly every mother recalls instances of her milk supply suddenly failing during a period of over-work, loss of sleep, or mental strain. Such unfavourable conditions, as can cause a temporary failure of the mother's milk supply, will, if continued, render unavoidable the early weaning of the infant.

The nursing mother must, with discretion, plan her day's programme allowing for some out-of-door exercise every day, but also securing to herself if possible an undisturbed eight hours sleep at night and several short rests during the day. Rather than become over-tired, she must if necessary neglect some of her less important household duties.

The mother's mental condition has a marked effect upon the nursing of her infant. The placid mother with a happy disposition is usually rewarded with a contented baby, while the nervous, irritable, anxious mother has a fretful, whimpering infant.

Such emotions as anger, grief, or anxiety have a definite effect in altering unfavourably the quantity and the quality of the mother's milk. Recognising this fact, every effort should be made in the home to shelter the mother from all disturbing influences.

Many a mother loses heart and begins bottle-feeding at the first sign of diminution of the breast milk. This is a serious mistake, for once baby is given one or two artificial feeds in the day, the secretion of breast milk steadily diminishes.

The breasts require the natural stimulation of regular nursing periods. Even though, as a result of some temporary derangement of the mother's health the milk is deficient, the babe should be put regularly to the breast. If there is not sufficient milk to satisfy its needs, a little suitable food may be given in a bottle after, but not

before the breast feeding. However, resort should not be made to the bottle until every attempt has been made to stimulate the breasts to normal activity.

Twice or thrice daily, the breasts may be stimulated by applying to them alternate hot and cold compresses. Have ready two basins, one containing water as hot as can be borne, the other cold water. Now bathe the breasts thoroughly with the hot water, then sponge them well with cold water for a moment. Repeat these alternate applications several times, always ending with the cold.

In order to keep the breasts active, it is best to put baby to both breasts at each feeding. As it is desirable that one breast should be emptied at each nursing, it is advisable to let baby suckle from one breast till nearly satisfied, then for the sake of stimulating the other breast, to have a short drink from it also. Care should be taken to alternate the empyting of the breasts at different feedings, so that both share alike in the stimulating effect.

Should baby not be able to take all of the milk secreted, the breasts should be comfortably emptied (in turn) several times daily by grasping the breast between the thumb and fingers of one hand and making gentle pressure strokes toward the nipple. If the breasts are not completely emptied every day, nature soon ceases to supply that for which there appears to be but little demand. The result is that while there may be too much milk in the early days of nursing, after a short time the supply diminishes and may even fail.

If the baby fails to gain steadily in weight the question arises as to whether he is obtaining sufficient milk. This may be determined by weighing baby, on accurate scales, just before and just after a breast feeding. The gain in weight at the second weighing would indicate the quantity of milk drawn from the mother's breast. If after several such test weighings it is evident that the mother's milk is deficient in quantity, special effort should be made to increase the milk secretion. Failing in this, it becomes necessary to supplement the mother's milk by artificially prepared food. The ordinary baby scales are not sufficiently accurate for carrying out these test weighings, but it can usually be arranged for the weighing tc be made at a Baby Clinic, or a Baby Health Centre, where scales especially suitable for this purpose are in use.

Throughout the nursing period great care should be taken to preserve cleanliness of the breasts and nipples. The latter should be washed and thoroughly dried after each nursing. Should the nipple crack, a nipple shield may be used for a few days. If the crack does not heal promptly, the physician should be consulted, as an abscess of the breast is frequently the sequence of a cracked nipple.

CHAPTER 3.

The Infant.

Natural and Artificial Feeding.

To be breast-fed is baby's birthright. It has been proven beyond question that the death rate is considerably lower in breast-fed babies

than in bottle-fed babies. This applies particularly to gastro-intestinal disorders.

As soon as convenient after birth, the babe should be put to its mother's breast. This early nursing is of particular benefit to the mother as it stimulates the normal and necessary contractions of the womb. It benefits the child by relaxing the bowels, as well as by satisfying its earliest pangs of hunger. Until the flow of milk is well established on about the third day after labour, baby's periods of nursing should be short but regular, at intervals of about four or five hours.

After the appearance of the milk, baby should be put to the breast at regular intervals, the length of which should be governed largely by the weight of the infant. If baby weighs seven pounds or more, he will probably thrive best on the four-hour interval. Should his weight be under seven pounds, he will require to be fed more frequently (say every three or three and a half hours) until he attains the weight of seven pounds.

It is now generally recognised that a baby thrives best with the longer interval between feedings. He takes more food at each nursing, so that in the course of the day a normal quantity of food is consumed. The longer interval not only gives the child's digestive organs a rest between feeds, but it affords the mother more time for duty, rest or diversion.

A healthy infant born at full term does not as a rule require night feeding. In exceptional cases, one night feeding may be given for a few weeks, but as soon as possible this feeding should be discontinued.

Baby's daily schedule should include five regular feedings, as follows: 6 a.m., 10 a.m., 2 p.m., 6 p.m., 10 p.m. The duration of each nursing period should be from ten to twenty minutes. If the breasts are well filled and baby is vigorous, he should be able to satisfy his needs in ten minutes, but if the supply of milk is less plentiful, or if baby is weakly, he may require to nurse for twenty minutes. If he cannot satisfy himself in this time, there is something wrong. Either there is an insufficient supply of milk, or baby is unable to suck properly, as in case of tongue-tie or cleft palate. In such a case a doctor must be consulted.

Baby should not be allowed to go to sleep while nursing, and as soon as he has finished he should be removed from the breast.

As has been mentioned previously, regularity in nursing is of the utmost importance both to the mother and her child. If baby is fed at irregular times, he is certain to suffer from indigestion and in consequence will not thrive.

The chief indication of baby's progress is his daily gain in weight. If he is thriving he will steadily gain in weight from the end of the first week in life. During the early months, he should gain from four to eight ounces every week. Should he gain less than four ounces a week, his feeding should be carefully investigated, and skilled advice should be sought.

At the end of six months, a healthy baby should have doubled his birth-weight, and at the end of the first year he should have trebled his original weight. Not only does a healthy baby gain steadily in weight, but he should be happy and contented, sleeping the night through, and having as well two or more day-time sleeps.

ARTIFICIAL FEEDING OF INFANTS: Since breast-feeding is of such great importance both to the mother and her child, every effort should be made to render it not only possible but entirely successful. Many women lose heart at the least difficulty and abandon all attempts at breast-feeding, when a little perseverance would crown their efforts with success.

There are, however, circumstances under which artificial feeding must be resorted to, as when the mother dies, or if she be the victim of tuberculosis, or if she becomes pregnant again shortly after the birth of her child.

Whether the baby must be wholly or only partially bottle-fed, the principles underlying artificial feeding remain the same.

The best substitute for mother's milk is cow's milk. Yet there is so great a difference in the composition of these two milks that the latter cannot be utilized to replace the former without considerable modification. Hence the terms, *modified* or *humanised milk.*

The following brief table shows the relative composition of mother's milk and cow's milk:—

Human Milk:		Cow's Milk:	
Protein or curd	2%	Protein or curd	4%
Fat	3½%	Fat	3½%
Sugar	7%	Sugar	4%
Mineral salts	2/10 of 1%	Salt	7/10 of 1%
Water	87.3/10%	Water	87.3/10%

It will be seen that cow's milk contains twice as much proteins or curd and considerably less sugar than human milk. As the curd of cow's milk is tougher and thus more difficult of digestion by the infant stomach, it is necessary to dilute the milk considerably in order to lessen the proportion of curd. This dilution of the cow's milk while reducing the curd to more normal proportion, further reduces the sugar which was already deficient. So it becomes necessary to add sugar and usually a small amount of cream to the diluted cow's milk in order to bring it up to the standard of human milk in these two particulars.

In the earlier weeks, plain boiled water may be used as a diluent for cow's milk, but as soon as the infant is old enough to digest a little starch (at about the sixth month) there is a distinct advantage in using some cereal water as *Granose water* in making up baby's food. But more will be said of this later.

Great care should be taken to secure pure country milk for infant feeding. Milk from a local farm or dairy is preferable to that which has travelled many miles, and which in consequence may have had a

preservative added to it. Unless the milk is obtained from a herd of cows which are tested with tuberculin at stated intervals, it is much safer to sterilize the milk before using it for baby's food. To do this put the jug of milk, loosely covered, into a saucepan of hot water and heat until a dairy thermometer registers 155° Fahrenheit. Keep about that temperature for ten minutes. Or it may be scalded by putting over the fire in a single saucepan and brought just to the boil. When sterilized or scalded, it should be cooled as quickly as possible by standing the jug in cold and preferably running water. Then put away in a cool place till required. A jug or dish containing milk should always be covered with a square of clean butter muslin, weighted in the corners with beads to keep out flies and dust.

Extreme care must be taken to observe strict cleanliness in all handling of baby's food and exact measures must be used.

It is not possible in this booklet to give detailed instructions regarding the modification of cow's milk for infant feeding. We may only state principles and make such suggestions as will be a help to the anxious mother. In the majority of cases, these suggestions if carefully followed will result most satisfactorily, but in any complicated or difficult case of artificial feeding the mother should seek advice from her doctor or from the Baby Clinic of her district.

The following table will serve as a rough guide in the dilution of cow's milk for infant feeding.

First week of infant's life	use	1	part	milk	to	3	parts diluent
Second to sixth week	,,	1	,,	,,		2	,, ,,
Sixth week to three months	,,	2	,,	,,		3	,, ,,
Three months to four months	,,	1	,,	,,		1	,, ,,
Four months to six months	,,	3	,,	,,		2	,, ,,
Six months to eight months	,,	2	,,	,,		1	,, ,,
Eight months to twelve months	,,	3	,,	,,		1	,, ,,

Again, the following table indicates approximately the quantity of food, at each meal, required by the average baby at different ages.

AGE OF BABY	QUANTITY REQUIRED AT EACH FEEDING
3rd day	1 ounce
4th ,,	1½ ,,
5th ,,	2 ,,
7th ,,	2½ ,,
10th ,,	3 ,,
Beginning of 3rd week	3½ ,,
,, 4th ,,	4 ,,
,, 2nd month	4¼ ,,
,, 3rd ,,	4½ ,,
,, 4th ,,	6 ,,
,, 5th ,,	6½ ,,
,, 6th ,,	7 ,,
,, 7th ,,	7½ ,,
8th and 9th ,,	8 ,,

To determine the total amount of food required for one day it is necessary to multiply the amount required for one feeding by the number of feedings in twenty-four hours. It is usually best to prepare sufficient food for the day, keeping it in a cool place, and measuring out the amount required for each feeding.

As has been previously explained, the mere dilution of cow's milk does not render it a suitable substitute for mother's milk. While dilution reduces the proportion of curd to the normal requirements of the infant's stomach, it also reduces the sugar and fat considerably below the percentage of these elements in mother's milk. If the infant is to thrive, this deficiency in sugar and fat must be corrected. No fixed rule can be given as to the exact quantity of sugar and fat to be added to the diluted cow's milk, as the dietetic requirements of babies vary considerably. But the following suggestions may serve as a guide.

To each three ounces of diluted cow's milk, add about one level teaspoonful of sugar of milk. In no case should it be necessary to add more than this, and in some cases less might suffice. It is best to use milk-sugar for baby's food as this does not readily ferment, but if it cannot be afforded, ordinary cane sugar may be used. Only about half the quantity specified for sugar of milk would be required.

It is difficult to state the amount of fat to be added to the diluted cow's milk. A small quantity of separated or skimmed cream, say from one-half to one teaspoonful, may be added to each feeding.

Or a little emulsion of cod liver oil may be given to baby with each bottle. Begin by giving five or six drops with each of three feedings, gradually increasing every second day until about one half-teaspoonful is being given thrice daily. Great care must be taken not to increase the proportion of fat too rapidly or to give more than the required amount. This applies particularly to the use of cod liver oil. While cod liver oil contains in abundant proportion the "fat soluble-A" vitamin which is so necessary to the growth of babies and all young animals, it is possible to do harm by giving this element in excessive amount, or for too long a period of time.

It is advisable to add a teaspoonful or more of lime water to each feeding as this renders the curd of cow's milk more easily digested by the infant. Lime water may be purchased in bottles from grocers or chemists or may be prepared as follows:

To prepare lime water, add one tablespoonful of freshly-slaked lime to half a gallon of boiled water. Stir thoroughly, and then cover to keep out dust. After twelve hours, drain off the water and throw it away as this would contain any impurities which were present in the lime. Again add two quarts of boiled water to the lime, stir for some moments and let stand for twelve hours. Now carefully drain the clear fluid and store in clean well-corked bottles for future use.

For the benefit of those who would prefer to have a definite table as a guide in the modification of cow's milk, we have inserted the following:

SUGGESTIVE TABLE FOR PREPARING VARIOUS AMOUNTS OF MODIFIED MILK.

Column	1	2	3	4
Quantity of modified milk required for the day	5 ounces or ¼ pint	10 ounces or ½ pint	15 ounces or ¾ pint	20 ounces or 1 pint
Milk	2 oz.	4 oz.	6 ozs.	8 ozs.
Sugar of Milk	3 teaspoons	1 tablespoon 2 teaspoons	2 tablespoons 1 teaspoon	3 tablespoons
or Cane-sugar	2 teaspoons	1 tablespoon	1 tablespoon 2 teaspoons	2 tablespoons
Lime water	¼ oz.	½ oz.	1 oz.	2 ozs.
Emulsion	1½ teaspoons	3 teaspoons	4½ teaspoons	6 teaspoons
Boiled water or Granose water up to the total quantity of food required	½ pint	1 pint	1½ pints	1 quart

NOTE.—To use this table, read each column from above downward. For example, if it is desired to make up 20 ozs. or 1 pint of food for the day, use the specified quantities of ingredients as given in Column 4.

Measure off the required quantity of milk, bring it quickly to the boil. Add the milk sugar and stir until dissolved, then add the lime water and cold boiled water, or Granose Water, cool quickly and keep in a cool place. The added fat should be carefully measured, and an equal quantity given with each feeding.

This modified milk resembles mother's milk as closely as can be managed by the home-modification of cow's milk. This being so it is not usually necessary to alter the constituents throughout the nursing period. It is only necessary to increase the quantity given at each feeding, in accordance with the growth of the infant.

In some cases, it is difficult or impossible to procure fresh cow's milk. There are on the market several dried milks such as Lactogen, Glaxo and others. These, if properly used, are the best obtainable substitutes for fresh cow's milk. They may be made up according to the instructions on the container. It is sometimes necessary to add a little fat, as emulsion of cod liver oil, also sugar of milk, to bring the prepared food up to the required standard. If using dried milk, it is particularly necessary to weigh the baby regularly to make certain that its progress is satisfactory.

As mentioned previously, after the sixth month there is an advantage in using a cereal water in place of plain boiled water in diluting baby's food. Granose water contains the valuable mineral salts which are present in the whole-wheat product, Granose. These salts are of particular benefit to the growing infant, as an abundance of the required mineral salts are necessary to the normal development of the infant's bones and teeth. It must be remembered that the child's permanent teeth are forming during the first three years of life. Though they are hidden away in the gums, deep down below the temporary or milk teeth, they are forming, and whether or not the child will have strong, sound, well-formed permanent teeth depends

almost entirely on whether or not the infant receives an abundance of good mineral salts with his food.

GRANOSE WATER—METHOD OF PREPARING: Granose water contains not only mineral salts, but also a fair percentage of the starchy or carbohydrate food-element so necessary to supply heat and energy to the growing child. Granose water is more quickly and easily prepared than any other cereal water. Prepare Granose water in the following manner: Boil one half Granose Biscuit in one pint of water for a few moments. Add a pinch of salt. Strain through a fine gauze strainer or butter muslin. Cover with butter muslin and set away in a cool place. This Granose water may, with advantage to baby, be used in the dilution of all his milk, after the sixth month of life.

THE IMPORTANCE OF VITAMINS IN THE DIET OF INFANTS: During recent years we have come to realise the importance of providing an abundant supply of vitamins along with the infant's food. Vitamin is a fairly recent term, but most people now understand its meaning—the living active principle which is present in fresh fruits, vegetables, milk and some other foods. This living principle, while not a food in itself, is essential to the utilisation by the body of the necessary food elements.

The breast-fed infant does not really need vitamins additional to those present in the mother's milk, but the baby who is being brought up on sterilized or scalded food must be given daily some vitamin-containing food. The freshly strained juice of ripe oranges is perhaps the most suitable, though the strained juice of ripe sound tomatoes does almost if not quite as well. Other ripe seasonal fruits, though perhaps less suitable, may also be utilized in the same way.

It is usual to begin by giving once daily about a teaspoonful of fruit juice two hours after a milk feeding. The quantity may gradually be increased until a tablespoonful or more is being given daily. This may be given in two feedings rather than all at once. It may be slightly diluted with water if baby prefers it so, also a little sugar may be added if desired.

Marmite is another valuable source of important vitamins. If fresh fruit is unprocurable a little Marmite may for a time be substituted for the daily vitamin supply. Dissolve about a quarter of a teaspoonful of Marmite in each feeding of modified milk.

If baby is deprived of the necessary vitamins, not only will his growth be interrupted, but he may become the victim of a distressing and serious disease called scurvy.

THE MANAGEMENT OF ARTIFICIAL FEEDING: Regularity is quite as important in artificial as in breast feeding of infants. Pending the arrival of baby's feeding hour, the required quantity of modified milk is put into a clean bottle. (The best nursing bottle is the modern upright bottle with a large mouth and the breast-like rubber top.) This is to be stood in hot water until the milk is warm, not hot (about 100 F.). Baby should be held in a comfortable

position similar to that of breast feeding and the bottle should be held for him by mother or nurse. Not longer than twenty minutes should be required for the taking of the meal. Any milk left in the bottle after baby's feeding should be thrown away.

The bottle should be cleaned in the following manner:

1. Rinse thoroughly with cold water.
2. Clean with hot soda-water, using a dish mop or bottle brush.
3. Scald with plain boiling water.
4. Turn upside down to drain and leave in this position so that dust and disease germs cannot enter.

Once daily the bottle should be boiled. To do this, wrap the bottle in a piece of clean butter muslin or calico. Place it in a suitable size saucepan containing cold water. Bring slowly to the boil and boil for several minutes. If so done, there is no danger of breaking the bottles by boiling.

After each nursing the rubber nipple should be well rinsed both inside and out with cold water. A little salt rubbed on removes all trace of milk. Rinse again in cold water, and once daily in scalding water. When thus cleaned, place in a saucer and cover with a cup, as rubber is perished by long exposure to light and air.

It often happens that the hole in the rubber nipple is so small that baby exhausts himself in endeavouring to suck the milk through it. The best way to enlarge the hole is as follows: Take a medium sized darning needle and by means of pincers, hold the point of the needle in a flame for a few moments. A candle or match flame will do. When red hot, insert the point of the needle into the hole of the teat. It will enlarge the hole smoothly and evenly. The hole in the nipple should be of such size that the milk will flow out slowly, just one drop in several seconds.

If the nipples receive the care described above, they will last for a considerable time. If scalded too frequently, or if left exposed to light and air, they will quickly perish and so become useless.

It is desirable to keep several bottles in use, or at least on hand, in case a bottle is broken.

CHAPTER 4.

The Weaning of Infants.

When the baby is about nine months old he should be weaned. If he has been bottle-fed it is a fairly easy matter to gradually introduce spoon or cup feeding. But if he has been entirely breast-fed the process is slightly more complicated, as the mother requires consideration as well as himself.

After about nine months of nursing, the mother's milk generally diminishes in quantity and deteriorates in quality. For this reason if for no other, it is advisable that baby be weaned at about this time.

Should the ninth month fall at the beginning of, or in the midst of the hot weather, it might be well to postpone weaning for a short time, as the gastro-intestinal diseases of the summer season are much more prevalent among artificially fed than breast-fed babies. Still it is neither fair to the mother nor to the child to continue breast-feeding long after the proper period for weaning.

Conditions being favourable, the process of weaning should be carried out gradually but steadily. At the end of a period varying from two to four weeks, the baby should be entirely weaned from the breast.

In weaning, all changes in baby's food should be made gradually. Also it is well not to introduce too many changes within a short period of time.

There is perhaps no food better suited to the needs of the growing child than Granose. This consists of the entire wheat kernel prepared in digestible form. Combined with milk, Granose constitutes a food of utmost value at any period of life, but particularly during later infancy and early childhood, when a well-balanced diet is so essential to the proper growth and development of the child.

When beginning the use of Granose it is best to make it into a rather thin gruel with milk. This may be given to baby by means of a bottle but it is better spoon-fed. The strength of the food may be gradually increased until after a few weeks baby is taking a gruel consisting of whole-milk thickened with Granose.

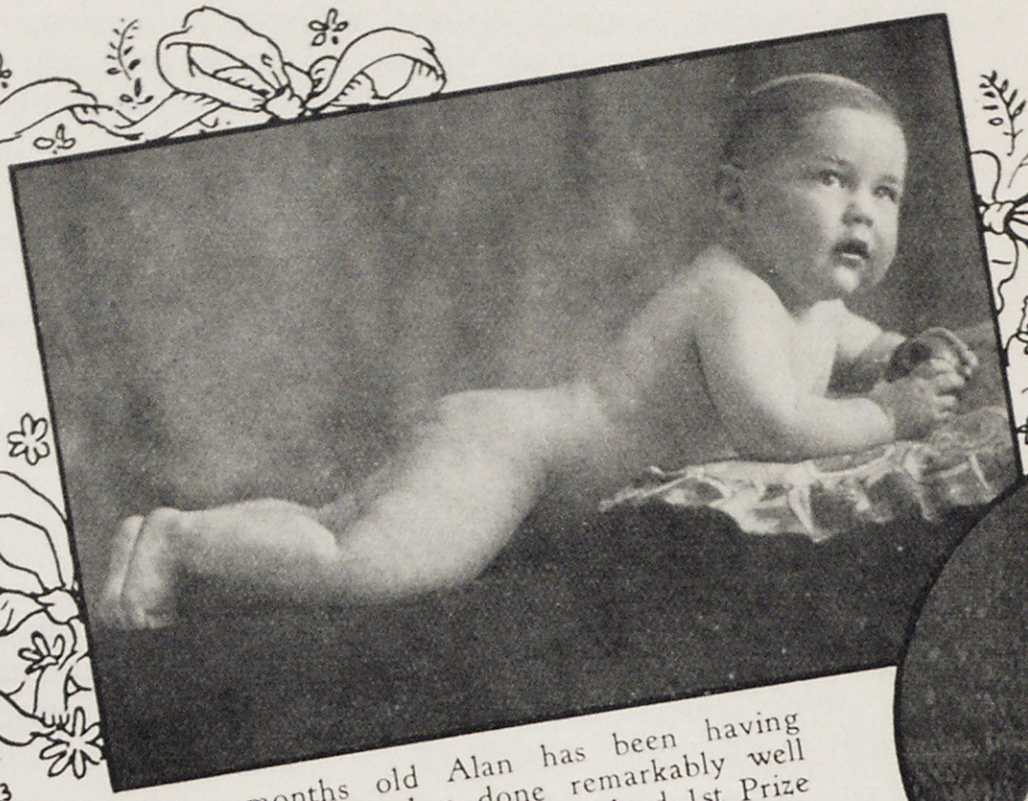
Care should be taken to avoid monotony of diet at the weaning time as well as later in life. For the sake of variety, oat jelly, barley jelly, thin Sanitarium Gluten gruel, and vegetable broth may be given from time to time. See Chapter 8 for recipes. It is also advisable to give baby occasionally the yolk of a lightly boiled egg. Egg yolk is very rich in iron, fats and vitamins, and is thus a great service to the growing child. At first only a portion of the egg yolk should be given to baby, but after a little time he should be able to take the entire yolk of a lightly boiled egg twice or thrice weekly.

It is most important also to supply baby with some dry, tough food, the chewing of which stimulates the development of the teeth, jaws and muscles of the face. A dry crust of bread, a piece of tough toast, or a hard wheatmeal biscuit serves this purpose well. Never, in any circumstances, should baby be left alone when nibbling such food, as a portion might break off and cause choking.

Prior to weaning, baby's meal-schedule will have been about as follows: 6 a.m., 10 a.m., 2 p.m., 6 p.m., 10 p.m.

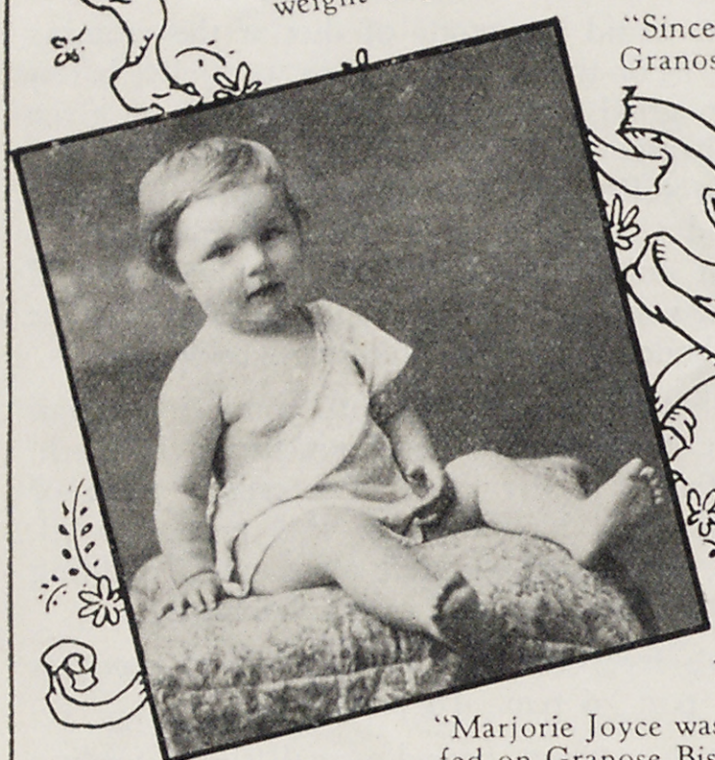
Begin by introducing at the 10 a.m. period a small spoon feeding of Granose gruel made in the following proportions. Half a Granose Biscuit boiled for a few moments in half a pint of rich milk and water (equal quantities). Add a pinch of salt and half a level teaspoonful of sugar.

Baby may choose to take only a small portion of this gruel at the first feeding. If this is so, baby should be put to the mother's breast



"Since five months old Alan has been having Granose regularly; he has done remarkably well and puts on weight weekly. He received 1st Prize at Northcote Baby Show. At 11½ months his measurements were: Height 31½ ins.; chest 24¼ ins.; weight 31½ lbs." W.R.R., Northcote, Victoria.

"Since early weaning Bobbie has been fed on Granose Biscuits. At 10 months he weighs 2 stone,



"Marjorie Joyce was fed on Granose Biscuits from since she was five months of age. Now she is twelve months old, and has taken three Prizes, two of which were Firsts. Baby showed better progress on Granose Biscuits than on other foods. Trusting that this experience may be of some use to others." J.K., Dunedin, New Zealand.

"Ian and Peter have had Granose since six months old and still have it daily. Ian is now four and has a perfect set of teeth. Peter (above) has hardly had a day's sickness all his life. Granose is indeed a splendid food for children." C.A.B., Hamilton, New Zealand.

The Freeman triplets photographed at 16 months of age. Their mother died when they were only two weeks old. These beautiful children were reared almost entirely on Sanitarium Granose Biscuits. Granose is all wheat and rich in those food elements of which growing children stand in greatest need.

is 32 ins. in height. Always a healthy, happy baby. He sleeps soundly all night." M., Melb.

"Baby has practically lived on nothing but Granose since 3 months old. I gave him Granose gruel until he was old enough to take Granose and milk. He took 1st Prize in a Baby Competition, and his sister, also reared on Granose, took 4th Prize." M.E.C., Hawthorn, Victoria.

"I cannot speak too highly of Granose Biscuits, and believe there is no better food for building healthy babies. I have fed my baby Errol on Granose since he was three months old. My other two babies were reared likewise. They've never had any teething trouble, and have always been remarkably contented, happy babies." D.M.K., Wahroonga.

to finish his meal. During the first day of weaning, the other breast-feedings should be given as usual.

On the second day, let the Granose gruel completely replace the 10 a.m. breast-feeding. The other breast-feeds may be given as usual. On following days the Granose gruel may also be introduced at the 6 p.m. period.

Thus gradually the supply of mother's milk will be lessening while baby is becoming accustomed to more substantial food. After the first few days, the Granose gruel should be made with a stronger milk mixture. Continue gradually increasing the proportion of milk used until whole milk is employed in preparing the gruel.

During weaning and for a few weeks following, it is advisable to give one or two feedings of milk mixture daily rather than to give the gruel at each feeding. The milk mixture at this period should consist of from three to six parts of milk to one of water. The milk used should be fairly rich, with cream and a teaspoonful of sugar of milk, or a half teaspoonful of granulated sugar (level measurements) may be added to each three ounces of the milk mixture. No fast rule can be given as to the exact proportion of the milk mixture, as the digestive power of babies varies considerably. A few infants at nine months can take whole milk without difficulty, while others thrive better on milk which is diluted in varying proportions.

At about the eleventh month, the 10 p.m. feeding should be discontinued.

At twelve months a little vegetable broth or a light milk pudding may be introduced at the 2 o'clock feeding. A little buttered bread or toast should be given at almost every meal. At least once daily, about an hour before the regular meal, a small drink of orange or other suitable fresh fruit juice should be given.

DIFFICULTIES IN WEANING AND CARE OF THE MOTHER'S BREASTS: It occasionally happens that a baby will refuse all food other than its mother's milk. This is indeed a difficult situation, but it can usually be overcome by the exercise of patience on the part of the mother. If baby, after repeated trials, still declines all artificial food it is necessary to bring about the desired result by the aid of hunger. The mother's breast must be withheld until baby is really hungry. Suitable food should be then offered him. If he refuses it he must be allowed to go without anything, with the exception of water and fruit juice until he yields to the new regime. Firmness and patience on the part of the mother are essential to success.

In the meantime while baby is being withheld from the mother's breasts, they may become engorged with milk. This condition must not be neglected. Several times daily the milk should be expressed by gentle but firm pressure of the hands (one on each side of the breast). If necessary a breast pump may be used, but it is best, if successful, to rely on manual expression of the milk. The milk which is removed from the mother's breasts may be given to baby or may be used in preparing his food so as to avoid too sudden weaning.

In the ordinary course of weaning, the mother's breasts may require some attention. If the process be carried out gradually, no difficulty may be experienced, but sometimes the breasts fill up and become hard and painful. If this happens, hot fomentations should be applied, after which the milk must be expressed as previously described. A binder, consisting of a towel or a length of calico of suitable width, should then be applied snugly. A pad of cotton wool should be put under each arm and between the breasts before applying the binder. To lessen her supply of milk, the mother should have a dry diet while weaning her baby, and should take a moderate dose of salts for two or three mornings in succession.

Should baby, during weaning, develop diarrhœa or other digestion disorders, his food should be made weaker without delay. If need be one or two feeds may be omitted, Granose or barley water being given instead.

Any digestion disturbance which persists, after trying these simple measures, should be brought to the doctor's notice.

Regularity of meal hours and the avoidance of feeding between meals is quite as important during weaning as at other periods of life.

BABY'S DIET DURING THE SECOND YEAR OF LIFE: While baby's diet during the second year of life may be far more varied than during the first, by no means should he be allowed to eat "whatever is going." Gastro-intestinal disorders are not infrequent during the second summer of life, and only by careful regulation of baby's diet can he be kept free from these ailments.

Milk should still constitute a large part of baby's food, about one and one-fourth pints being his daily allowance. Part of this may be drunk in varying degrees of dilution; the rest may be used in the preparation of gruels, milk puddings, junket, etc.

Some fresh ripe fruit should if possible be given daily, care being taken to avoid skins and pips. The pulp of a well-baked apple or pear, or prune puree may be given from time to time. In districts where fresh fruit is very scarce, choice dried fruits, suitably prepared, or preserved fruits may be used.

A choice brand of tinned tomatoes also affords vitamins in suitable form. It has been ascertained that a large proportion of the vitamin content of tomatoes still remains active even after an hour's cooking. Marmite is of especial value by reason of its rich content of vitamin-B.

Honey or Sanitarium Malted Wheat Extract are wholesome sweets and are better suited to baby's needs than jam or rich preserves.

Vegetable broth containing a little well-cooked rice or vermicelli affords pleasing variety. See Chapter 8 for recipes.

A little tender and suitably cooked vegetable should frequently be included in the mid-day meal. At first only a small amount of mashed or pureed vegetables should be given to baby, but as his digestive power increases, more liberal supplies should be allowed.

The vegetables best suited to baby's use are spinach, beet tops, if young and lightly cooked, peas, green beans, potato, cauliflower and Brussels sprouts.

A lightly-boiled, poached or coddled egg may be given twice or thrice weekly if it agrees with baby.

It should be understood that children may be reared in perfect health on a diet in which flesh foods have no part. Whole grains, fruits, vegetables, nuts, milk and eggs constitute a diet which contains all the essentials to the development of the child's body.

CHAPTER 5.

General Care of the Infant.

At a regular hour each morning, baby should be bathed.

The most suitable time is the hour prior to the second feeding, or at about 9 o'clock.

Everything should be in readiness before undressing baby.

The following articles are necessary:—

A bath, preferably a long narrow one, so that baby can lie down in it.

A supply of hot and cold water.

A mild olive oil or super-fatted soap.

Talcum powder.

Two soft medium-sized towels.

Wash cloth of towelling or flannelette (never a sea sponge).

Two small enamel basins, one containing boiled water and several small cotton wool swabs for washing the eyes, nose and ears, the other to be used as a chamber for "holding baby out."

Baby's clean clothing, including singlet, petticoat, frock, napkin, bootees, etc.

A low chair for the mother.

The following additional articles are most convenient and should be provided if possible.

A low box or table, about nine inches high and a few inches longer and wider than the bath, on which to stand baby's bath. It should have a narrow ledge about an inch high nailed around its edges to prevent the bath from slipping off. The use of this bath-stand saves the mother from fatigue while bathing baby.

A small stand (a chair will do) to hold the basins, soap, powder, etc.

A screen to protect baby from draughts. One supporting several pockets, and a row of clothes hooks is most useful for holding baby's toilet articles and little garments.

Having everything in readiness, pour the water into the bath. Always pour the cold water in first, then sufficient hot water to secure the desired temperature (about 98°F.). If one has not a

bath thermometer, the water may be tested by the mother's elbow. The water should feel just warm. It is very important to form the habit of always pouring the cold water into the bath first. Very serious accidents have happened to babies through failure to follow this rule. A mother may pour a quantity of hot water into baby's bath, then perhaps may be called away for a moment. In the meantime the baby or an older child may fall into the hot water and be severely burned.

Having the bath ready, undress baby, holding him in the lap with his head towards the bath. First, wash his eyes, nose and face, using the small swabs in the basin of boiled water. Then wash the ears, using a little soap and taking care to cleanse well behind the ears, where eczema so often develops as a result of neglect. Next soap baby's scalp thoroughly with the wash cloth and rinse well by holding baby's head over the bath while washing off the soap. Now dry the head and face well before washing baby's body. Dry with particular care behind the ears. Examine baby's mouth, but do not swab it out if it is quite healthy. In case of thrush, follow the treatment given on page 27.

Having washed and dried baby's head, now soap his body well, using the hands to rub on the soap, then gently let him down into the water, supporting his head with one hand and his hips with the other. After baby has had a little kick and splash in the water lift him out on to the lap, protected by the rubber apron, over which one towel is spread. With the second towel, dry baby gently, not so much by rubbing as by patting. Dry the folds and creases of the little body with great care, and then, but not before, dust on a little talcum powder. Remove the damp towel and dress baby in order, putting on his vest, petticoat, and frock. Before putting on the napkin, place the second small bowl between the knees and hold baby in a comfortable position with his buttocks just resting over the edge of the basin. It is surprising how soon baby will come to understand this little procedure and will daily evacuate his bowels when given so favourable an opportunity.

After he is completely dressed he should be fed and then put in his cot or pram outside for his mid-day sleep.

Each morning baby should have a full bath. At bedtime he may be merely sponged, or if convenient, a second bath may be given. There is no objection to more than one bath being given in the day, provided the temperature of the water is only moderate. Hot baths are weakening and relaxing and should not be given except in the case of convulsions or other illness. In very hot weather, it is advisable to give baby a cool or tepid bath several times in the day as this is conducive to sleep and general comfort.

As baby grows older the temperature of his bath should be gradually reduced until by the time he is several years old he will enjoy cool baths or a dash of cold water at the close of his warm bath.

Baby's clothing should be warm, light, loose and comfortable.

Beyond a doubt babies are often the victims of very uncomfortable clothing. Rough coarse garments with unfinished seams in the inside irritate a baby's delicate skin and cause much discomfort. Also the wearing of too much clothing makes baby warm and fretful and causes a heat rash usually known as "prickly heat." Long petticoats and frocks hamper baby's limbs and hinder their natural movement, while tight binders interfere with respiration and digestion. Again, insufficiency of clothing robs baby of vitality, interferes with his growth and causes colds, bronchitis and digestive disorders.

The infant's outfit as recommended by the Baby Clinics and Health Centres is ideal. Not only are the garments light, yet warm and comfortable, but they are so simple in design that they are very easily made and laundered. Also they are planned in such a way that they are suitable for a young infant, or, with a few simple alterations, for a child from nine to eighteen months of age.

The binder is required for only the first week or two of life. It consists of a piece of fine soft flannel one-half yard long and five inches wide. The edges should not be hemmed. Its sole purpose is to retain in position the dressings of the navel cord. As soon as the cord has separated and the navel is quite healed, the binder may be discarded. If the weather be extremely cold, the binder may be replaced by a soft hand-knitted band, knitted in ribbing like the top of a sock.

For a winter baby, hand-knitted singlets made of the softest wool are usually satisfactory. They should be knitted with long sleeves. The ready-made singlets of silk and wool are in some respects preferable. They are not so irritating to baby's delicate skin as pure wool and they shrink less in washing.

The petticoat should be made of fine flannel or viyella. The latter is an admirable material for baby's clothing as it is soft, warm and unshrinkable. The petticoat should be made quite plain, cut in two pieces, and fastened on the shoulders. It may be scalloped or finished with crochet round the neck, sleeves and bottom. It should be about twenty-seven inches long.

For winter wear there is no material more suitable than radianta or viyella; for summer, fuji or china silk. The magyar style is admirably suited to the needs of the growing infant. If one or two half-inch tucks are arranged over each shoulder, these can be let out at a later date, so increasing the width of the garment and permitting it to be worn for a much longer time. It should be just long enough to cover the petticoat.

The nightdress may also be made of viyella or fine flannel, in the magyar style.

The napkins should be from thirty to thirty-three inches square, and are best made of soft towelling or fine flannelette. Rubber pants, so much worn by babies of late, are neither healthful nor comfortable. Pilchers knitted in wool are suitable for wear over the napkin.

When baby is going out, in addition to the garments already mentioned, he will require several pairs of bootees, also bonnets, jackets, and one or two shawls.

The minimum number of garments required for baby's outfit is as follows:

4 Singlets.
3 Petticoats.
3 Frocks.
3 Nightdresses.
3 Binders.
Two or three dozen napkins.
2 Shawls.
2 Bonnets.
4 Pairs of bootees.

It is unwise to provide an elaborate outfit for baby, as this entails needless expense and labour, both in the making and laundering of the little garments.

EARLY TRAINING IN REGULAR HABITS: It is of the utmost importance that baby be early trained into regular habits of life.

A well-trained baby causes very little disturbance in a home, apart from the care and attention which is his due; but a spoiled baby upsets the entire household, interfering with the rest and comfort of all concerned.

From the very beginning, baby's life should be ordered in a quiet methodical way, with a regular hour for his bath, his meals, his sleep and his play. In the early days, he will spend about twenty-three hours out of every twenty-four in sleep. As he grows older he will gradually have more wakeful hours, but if kept healthy and comfortable these hours will mostly be spent in happy self-entertainment. However, even the healthiest and most contented baby needs some mothering, and for a little time each afternoon, before the evening feed, it is well for the mother to cuddle and love her baby.

A little play and stretching of the limbs should always be allowed during bath time, whether morning or evening, as this strengthens the little body and is conducive to restful sleep.

As described on page 26, baby should be early encouraged to regular evacuations of the bowels. He should also be given frequent opportunity of relieving the bladder, just after feeding being the most suitable time. A little care in this respect establishes regular habits in babyhood and results in greater comfort for the child and a lessening of his mother's toil.

A matter of the greatest importance is to secure regular hours of sleep for baby. After he has had his bath and his food, he should be made quite comfortable and should then be put into his cot and left, unattended, to sleep. Should baby fret for a few moments, no notice should be taken, but should he cry loudly as though in pain he should be lifted and carefully examined to make sure that he is comfortable. See if his feet are warm, also if his napkin is dry and comfortably adjusted. Ascertain if his clothing is tight or in any way irritating. Sometimes a little gas in the stomach is the cause of the pain. A few sips of hot water or a little gentle patting on the back may dispel the gas and so bring relief. After making sure that baby is comfortable, return him to his cot, and again leave him to sleep. On no account should he be taken up and nursed if he still cries a little, as this would hinder the formation of a regular sleep-habit.

So far as possible, babies should be protected from undue noise and excitement. The peaceful surroundings of a well-ordered home are best suited to baby's normal growth and development. Of course as he grows older he will appreciate short rides in his pram or occasional trips in a motor car.

We would emphasise the child's urgent need of fresh air and sunshine.

From earliest infancy, the little cot or bassinet should be placed on a sheltered verandah during the day and at night he should sleep in a room which is well ventilated.

Sunshine is as essential as food to the growing child.

Should baby have a comforter? This is a question every mother must decide. The general consensus of medical opinion is that the so-called comforter is an unwholesome and insanitary article and that its use is the frequent cause of adenoids or post-nasal growths and of faulty development of the teeth and jaws. It is certain that a baby who has never experienced the use of the comforter can be reared quite happily without its aid.

A word of caution should be given with reference to baby's toys. Care should be exercised in their selection. Generally speaking, such toys should be chosen as can be washed or otherwise disinfected from time to time. A few clothes pegs or a number of empty cotton reels strung on tape afford baby a great deal of pleasure.

Inflammable or sharply pointed articles or toys which are gaily painted or those which have small parts which may break off and perhaps choke baby, should be carefully avoided. It must be remembered that a young child puts every available article to his mouth, hence the necessary care in choosing his toys.

CHAPTER 6.

Common Disorders of Infancy.

Vomiting occurs with less provocation in infancy than in adult life.

It is generally caused by one of the following conditions:—

1. Over-feeding, that is, giving too large a quantity of food at one time.
2. Too frequent feeding.
3. Too rapid feeding, which often leads to over-feeding.
4. Flatulence or wind in the stomach.
5. The beginning of acute illness, in which case food should be withheld for a short time, or until a doctor is consulted.

Should this symptom not yield to correction of mistakes in feeding, the advice of a physician should be sought.

Colic is a well-known ailment of infancy, characterised by spasmodic pain in the abdomen due to the presence of gas in the stomach or bowel. The baby cries loudly and draws his legs up against his body. Often the pain ceases temporarily after the expulsion

of gas from the digestive tract. The condition, if occurring frequently, demands a careful investigation of the child's feeding. It is likely that he is being fed too frequently, or that his food is too rich, particularly in proteins. If breast-fed, try lengthening the interval between feedings and give a few teaspoonfuls of warm boiled water just before nursing, thus diluting the mother's milk. If bottle-fed, give a more dilute milk mixture, and also increase the length of interval between feedings. Care must be taken to keep the bowels regular.

For immediate relief of colic, hold baby upright, pressing his abdomen against your chest or shoulder and gently pat his back. Give him a few sips of hot water. If this is ineffectual lay him across the lap with a hot water bottle under his stomach, taking great care not to burn him. If still in pain, he may be given an injection into the bowel of a little warm water containing cooking salt in the proportion of a level teaspoonful to the pint of water.

If baby's motions become frequent and green in colour when first passed, give him a teaspoonful of castor oil and withhold all food for at least twelve hours. Give him plenty of boiled water to drink. This treatment will usually relieve an attack of ordinary diarrhœa. If the symptoms abate a gradual return may be made to the usual diet.

If the diarrhœa continues and if the child vomits or is wasting rapidly and appears to be really ill, consult a doctor without delay, as he is probably suffering from severe gastro-enteritis or summer diarrhœa. This is a very serious disease and many little lives are lost each year through a failure to seek early medical advice. A safe rule to follow in any case of infantile diarrhœa is to withhold food and give plenty of boiled water until the symptoms subside or the advice of a doctor is obtained.

The prevention of diarrhœa is a matter of the utmost importance at all times, but particularly during the summer season. Due care should be given to the following points.

Clothe baby lightly yet with sufficient warmth, changing his garments according to the weather.

Bathe baby twice or even thrice daily when the weather is extremely hot.

On warm days baby should be allowed to sleep on a shady verandah or under the trees in the garden. A mosquito net should cover his cot or pram. Very little or no covering should be placed over him.

On very hot days he may be made more comfortable indoors. Care should be taken to air the house well mornings and evenings as it may be advisable in extremely hot weather to close the doors and windows at mid-day.

Baby's napkins should be changed as soon as wet or soiled. They should never be left about the room where flies may gain access to them, but should be at once placed in a covered pail containing cold water. They should then be boiled at the earliest convenience.

Give frequent drinks of boiled water between feedings.

Give baby a slightly weaker milk mixture in very warm weather or dilute the breast milk by giving a few sips of boiled water just prior to nursing.

Maintain regular hours of feeding and allow nothing but water or strained fruit juice between feedings.

Take extreme care to observe cleanliness in the preparation of baby's food. Especially in the summer season, milk should be obtained as fresh as possible. It should then be scalded without delay, cooled rapidly, preferably in running water, and then set away in a cool, airy place. The jug or basin in which the milk is kept must be covered with a square of net (well weighted with beads) to keep out flies and insects.

Baby's nursing bottles must also be kept scrupulously clean. See page 14 for the cleaning and care of the bottle and nipple.

Constipation is fairly common in infancy, but it can usually be corrected by careful feeding and the establishment of regular habits.

In case of a breast-fed baby, the mother should carefully avoid constipation in herself. She will experience the greatest benefit from the free use of fruits, salads, vegetables, wholewheat bread, San Bran and Granose Biscuits. Also she should drink water freely between meals and should secure an adequate amount of exercise daily. She should give her baby frequent drinks of boiled water between meals and gradually introduce the use of strained orange or tomato juice. See page 13.

In bottle-fed babies who are constipated, it is likely that some alteration should be made in the milk mixture. A little more cream may be required, or perhaps less milk curd, the latter being effected by giving a more dilute mixture. The sugar may need to be slightly increased, or just the giving of a larger quantity of food may correct the condition. The establishment of regular habits is most important. At a regular time each morning baby should be "held out" over a small chamber held in the mother's lap. To aid in establishing this habit, it may be necessary or advisable to give a small injection at the set time for a few mornings.

To give a baby an enema or bowel injection, provide the following:

A soft rubber bulb syringe, which will hold several ounces.

Vaseline or cold cream to lubricate the nozzle of the syringe.

A small basin containing warm water (and one teaspoonful of salt to the pint of water).

Glycerine and water in equal parts may be used instead of the salted water in more obstinate cases.

Lubricate the nozzle of the syringe, draw in the desired amount of fluid, expel all air from the syringe, insert the nozzle very gently into baby's bowel and then very slowly and gently force the fluid into the bowel by squeezing the bulb. Use as small a quantity of fluid as will suffice to move the bowels. One or two ounces should be

sufficient for a baby up to four months of age; from three to five ounces up to seven months, and from five to seven or eight ounces up to twelve months of age. It might be necessary to refit the syringe a second time if it is very small.

It is not generally known that liquid paraffin is entirely harmless and altogether desirable in the treatment of infantile constipation. One teaspoonful may well be given once, twice or thrice daily. Castor oil should never be used regularly as a corrective of constipation. While it is very useful in an emergency, it should not be given regularly as its use is always followed, for a few days, by an aggravation of the constipation.

As baby grows older and can take a more varied diet the trouble usually disappears. The introduction of Granose water or oat jelly as a diluent for the milk after the seventh or eighth month is of decided benefit in regulating the bowels. And during the early months after weaning, the free use of Granose Biscuits with milk is almost a sure preventative of constipation.

Thrush is a fairly common ailment of infancy. It appears in the mouth as small white specks on the inside of the lips and cheeks. It is caused by the growth of a germ or fungus in the mouth. It may be prevented by observing scrupulous cleanliness in all that pertains to baby's feeding. Also, unless baby's mouth is seen to be unhealthy it should not be swabbed out as a daily routine. The lining of baby's mouth is very delicate and may easily be injured by unskilled swabbing. In case thrush develops it may be promptly cured by gently swabbing several times daily with a solution of glycerine and borax. This can be procured ready mixed from any chemist.

Prickly Heat is characterised by a fine red rash which is likely to appear on baby's skin during hot weather, or if over-clothed at any season of the year. The wearing of silk or cotton fabric next to the skin is less likely than wool to cause overheating. No treatment is required other than lessening the baby's clothing and the use of a dusting powder. A good talcum powder will do, or a mixture of starch, boric acid and zinc oxide is beneficial.

Unless great care is taken to change baby's diapers as soon as they are wet or soiled, his buttocks are likely to become chafed and sore. Particular care should be taken during an attack of diarrhœa, as the motions are then very irritating and soon cause the skin to become sore. During an attack of diarrhœa, the parts should be cleansed with olive oil. Leaving the parts exposed to the air for a little time each day helps in effecting a cure.

Baby's diapers should not be soaked in strong disinfectants or caustic soda, as unless they are afterwards very thoroughly rinsed they are certain to make baby's buttocks sore. Washing with a mild soap, boiling and thorough rinsing are quite sufficient in cleansing baby's diapers.

At about the age of six or seven months a healthy baby begins to cut his first or milk teeth. If he has been well and wisely fed they should appear with due regularity and without much disturbance of the general health. Baby is likely to be somewhat restless and irritable

and his sleep may be slightly disturbed. Baby's feeding should be carefully regulated during teething. Also his bowels should be evacuated every day. If the gums are swollen and congested, frequent drinks of cool boiled water should be given.

Under no circumstances should proprietary teething powders be given to baby except on the advice of a doctor.

Should baby develop diarrhœa or marked indigestion a doctor should be consulted. There is a tendency among mothers to explain many ailments of infancy by the fact that baby is teething. This is a mistake as teething causes but little disturbance in a healthy child.

Should baby have no signs of teeth by the twelfth month, it is likely that his feeding is at fault and skilled advice should be sought.

A healthy baby usually has about six teeth at twelve months of age. At two years he should have about sixteen teeth and by the time he is two and a half years old the first set of teeth, consisting of twenty, should be complete.

As soon as several teeth are cut they should be cleansed daily with a soft cloth or brush. Even young children should be taken to the dentist about every six months to have their teeth inspected and any irregularity or disease corrected.

CHAPTER 7.

The Care and Feeding of Older Children.

There appears to be a tendency on the part of many mothers to somewhat relax their vigilance in the care of their children after they have brought them safely past the critical period of infancy.

This is a grave mistake, for by no means has the child escaped the danger of disease when he has left infancy behind and has entered upon the pre-school age.

The same watch-care should be exercised over the child through all the years, until puberty is safely passed.

It is during childhood that a strong foundation of health should be laid. It is during childhood that sound habits should be formed which will make for health and happiness through all the years to follow.

The same principles which guided the mother in the care of her baby must be rigidly adhered to in the guidance of the older child.

Shall we briefly reconsider these principles?

Fresh air and sunshine are indispensable to the well-being of growing children. Sturdy children cannot be grown indoors. The great out-of-doors is their natural home and playground. Suitably clothed and protected from extremes of weather, let the children so far as possible live out of doors.

Tuberculosis, rickets, anaemias and many other diseases thrive indoors. While correct feeding is of vast importance in the prevention of rickets, sunshine is of scarcely less importance both in the prevention and the treatment of this disease.

Out-of-door living together with suitable feeding has long been considered the nearest approach to a cure for tuberculosis or consumption.

Sleep is also of vital importance to the growing child. During their waking hours, children are so active that there is more breaking down than building up of the body tissues. But during sleep growth is promoted.

The greatest care should be taken from earliest infancy to inculcate regular habits of sleep.

If possible, children should sleep on a balcony or verandah. If this is out of the question, at least the sleeping apartment should be roomy and well-ventilated. The avoidance of exciting games and the taking of a warm bath before bedtime are conducive to sound sleep.

The bed coverings should be light, yet sufficiently warm.

Personal cleanliness is essential to health. Children should be taught to take pride in keeping their bodies clean. Not only is the daily bath needful, but a daily cleaning of the mouth and teeth. The little ones should be shown the correct use of the tooth brush, as great damage may otherwise be done to the gums. The brush should always be swept from the gums towards the edges of the teeth. At least twice daily, morning and night, the teeth should be thoroughly cleansed. The tongue also, if coated, should be brushed.

At regular intervals of about six months the children should be taken to a dentist for inspection of the teeth. It is well worth while having the first teeth cleaned and filled, as their preservation is of great benefit to the child's health. The first teeth of the second set which appear at about six years of age, often decay very quickly and may be lost through early neglect. If the children are regularly taken to the dentist they will cease to fear their visits to him and will learn the wisdom of the adage, "a stitch in time saves nine."

Feeding the growing child is a matter which, in importance, ranks second to none.

To supply a well balanced dietary should be the constant aim of the mother. To give a child an excess of one food element while other important elements are lacking or provided in deficient quantity, inevitably leads to disease and faulty development of the growing body.

For example: An excess of carbohydrate foods, as starches, sugars, and fats, may lead to obesity or to the excretion of sugar in the urine.

An excess of protein foods as meat, cheese, eggs, etc., taxes the kidneys unduly and may lead to disease of these organs.

A deficiency of proteins may result in anæmia, tuberculosis and other serious diseases.

A shortage of vitamins as found in fresh fruits, vegetables, milk, cream, egg yolk, etc., may lead to various abnormal conditions of the body.

It is evident then, that the choice of a well-balanced dietary is of vital importance to the growing child.

A WELL-BALANCED DIETARY FOR THE GROWING CHILD: Milk is a food admirably suited to the needs of the young child. It is rich in proteins and in lime salts, both of which are necessary to the upbuilding of the soft and of the bony structures of the body. Milk, preferably sterilized by scalding, should be provided in abundance. It may be utilised not only as a drink, but should also be used in the preparation of many wholesome and attractive dishes for children.

Eggs, if fresh and obtained from healthy and carefully fed fowls, constitute a valuable source of proteins and fats. The yolk of the eggs is particularly rich in the important fat-soluble-A vitamin.

Nuts are Nature's meats. They are rich in fats and proteins, while free from any deleterious properties. Being a very concentrated food, they should be used only in moderation. Still, they are a most valuable addition to the well-balanced dietary.

Fruits are of the utmost value. Although their actual food content is small, they contain so abundant a supply of vitamins, mineral salts, and organic acids that they can scarcely be done without. These acids combine in the body with mineral salts in such a way as to render the blood alkaline and thus more resistive to disease.

Fruits also contain cellulose or fibre which is useful in stimulating the activity of the bowel. While fresh fruits are best of all, dried and preserved fruits are also useful. Figs, dates, prunes and raisins are particularly beneficial in cases of constipation.

Vegetables, like fruits, are very rich in vitamins and mineral salts and should be accorded an important place in the dietary. The green and leafy vegetables, as lettuce, spinach, cabbage, beet tops, Brussels sprouts and celery are of particular value and should be used freely. Vegetables are not only valued for their vitamins and salts, but also for their large variety of pleasing flavours. Again, they afford necessary bulk to the food and so favour thorough elimination of waste products through the intestine. If and when vegetables are scarce, see to it that a small quantity of Marmite is given daily. Sandwiches may be spread with Marmite, or a health-giving beverage made of it. Marmite may be added to all savoury cooking.

Cereals constitute a very important class of food stuffs; containing, as they do, a generous supply of proteins, carbohydrates, vitamins and mineral salts, they are indispensable to the healthy child.

The various cereals differ somewhat in the nature of their proteins. For this reason it is well to utilise a variety of grains in the child's diet.

Of all the cereals, wheat is the most suitable for bread-making and for general use.

The chief consideration is to obtain such preparations of wheat as are not denatured or deprived of any valuable constituents. The mineral salts and vitamins, both so essential to the normal growth of the body, are found chiefly in the bran and the germ of the wheat. For this reason, but little use should be made of the refined white flour which is so markedly deficient in these vital elements. Whole

or entire wheat flour should be largely used in the making of bread, porridge, scones, cakes and pastry.

There is at present a growing demand among thinking people for entire wheat products. Granose Biscuits admirably meet this demand. Granose consists of selected wheat, skilfully prepared by a process which leaves each kernel entire and lacking nought of its valuable properties. Granose provides whole wheat in its most convenient and palatable form. The good whole grains of wheat are thoroughly and carefully cooked, flaked, and then pressed into biscuit form. Granose, therefore, is an ideal breakfast food, an excellent substitute for bread and of very great value in the preparation of many wholesome and attractive entrees and puddings. It is also of the greatest service in the feeding of the sick and aged, as well as healthy children.

CHAPTER 8.

Valuable Recipes for Use in the Dietary of Infants and Growing Children.

GRANOSE WATER: Boil one-half of a Granose Biscuit in one pint of water for a few moments. Add a pinch of salt. Strain through a fine gauze strainer or butter muslin.

GRANOSE GRUEL for infant at time of weaning: Boil one-half of a Granose Biscuit for a few moments in one half-pint of rich milk and water (equal quantities). Add a pinch of salt and one-half level teaspoonful of sugar.

GRANOSE GRUEL for older children: Bring to the boil the required amount of milk and thicken it with Granose (about one biscuit to three-quarters of a pint of milk). Boil for a few moments, add a pinch of salt and a little sugar if desired.

GROATS: Mix half a tablespoonful of groats with one tablespoonful of cold water. Pour over this one-half pint of boiling milk, stirring well. Pour into a saucepan and cook gently for ten minutes. Add a pinch of salt and sugar as required.

CARROT JUICE: This contains vitamins and may be used in place of orange juice when this fruit is unobtainable. Wash a carrot and then dip it in boiling water for one half minute. Grate it and just cover with cold boiled water. Let stand two hours, then strain and give the amount ordered to the child. It should be prepared fresh each day.

OAT JELLY: One tablespoonful oatmeal soaked over night in one pint of water. Boil twenty minutes. Add salt to taste and a little sugar. For a young child strain before feeding.

BARLEY JELLY: Three level tablespoonfuls of patent barley, one-half pint water and a pinch of salt. Cook in a double saucepan two hours. Strain through a fine sieve. This makes four ounces when done.

BARLEY OR RICE WATER: One dessertspoonful pearl barley or unpolished rice, well washed and boiled in one pint of water for twenty minutes. Strain and make up to one pint by addition of more boiled water. This must be made fresh twice daily in hot weather as it ferments quickly.

VEGETABLE BROTH may be made from a variety of vegetables, either singly or in combination, as carrots, parsnips, beet tops, spinach, potato, celery, etc. Wash the vegetables well and cut up quite fine. Cook until tender in an uncovered saucepan, add salt and a little barley or rice. Strain for an infant. For an older child, press part or all of the vegetable through the sieve and serve with the broth to which a little Marmite has been added.

VEGETABLE PUREE: Wash vegetables well and cook until quite soft. Add moderate quantity of salt. Press through fine sieve. Almost any vegetable may be cooked in this way for older infants and young children. Potato, carrots, parsnips, turnips, spinach, Brussels sprouts, cauliflower, lettuce, tomato and asparagus are all suitable. A little Marmite may be added for digestibility and flavour.

MARMITE BROTH: Dissolve ½-teaspoonful of Marmite in a cup of boiling water or milk which has been slowly heated but not brought to the boil. When Marmite Broth is made with water a little milk may be added to taste for drinking.

CREAM SOUPS: These may be prepared from any well-cooked vegetable pulp or puree, as peas, asparagus, carrots, spinach, beet tops, tomato or celery, with a little Marmite added. Take about one tablespoonful of vegetable pulp and one half-cup of the water in which the vegetable was cooked. Add half a cup of sweet milk and thicken slightly with flour rubbed smooth in a little milk. Season with salt. Boil for a few minutes. Strain if necessary.

APPLE PULP: Bake a ripe apple until quite soft. Remove the skin and core. Press the pulp through a sieve if for a young child and add a little sugar.

PRUNE JUICE: Wash prunes thoroughly. Just cover with water and let soak over night. Boil gently for one hour, adding a little more water if necessary. Strain off the juice, which may be given to even young infants suffering from constipation.

PRUNE PULP: Take prunes prepared as above. Remove the stones and press the prunes through a sieve. Add a little of the juice. This also may be given to babies from about weaning time on through early childhood.

GLUTEN MEAL GRUEL: Three tablespoonfuls of Sanitarium Gluten Meal and one pint of boiling water or milk. Stir the Gluten Meal carefully into the boiling liquid. Boil till it thickens.

Sanitarium Gluten Meal is a sure blood-and flesh-forming food for growing children, and is also an ideal food for invalids.

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